

### DANGER IN X-RAY EXPOSURE.

A warning against the haphazard and indiscriminate use of the X-ray by inexperienced operators seems particularly opportune at this time, as the lay press of San Francisco has so recently published the case of the unfortunate Mrs. Fleishman-Aschheim, whose arm was amputated, a few weeks ago, for an epitheliomatous degeneration caused by repeated exposure to these rays. Dr. P. M. Jones, the pioneer of this work on the Pacific Coast, suffered from X-ray burn of the hand as early as 1896; though in 1900 he gave up this work entirely, even at the present writing trophic and degenerative changes are going on in that important member of his anatomy. Other men have been forced to give up the use of this valuable agent on account of burns, or, as in one case, on account of neurasthenic symptoms such as have been early described by French authors. The literature germane to the subject describes the oblique action and dangers of the X-ray most comprehensively. But it seems that the general rank and file of the profession have not had sufficient access to these publications or taken cognizance of them.

The operator should be thoroughly protected by a lead screen. The use of the operator's hand to test the condition of the tube is extremely dangerous and accounts for many burns. Fluoroscopic examinations expose the operator to the action of a quantity of the rays; hence, if frequently resorted to, it becomes a decidedly dangerous method. Changes in the skin of patients treated by the X-ray take place, in many instances, even years after the exposure. These changes resemble closely the various scleroderma-like conditions of the skin. For this reason trivial conditions of the face, hands, etc., should not be treated with the X-ray as the sequelæ may be more serious and disfiguring than the original trouble.

### THE URIC ACID FALLACY.

That the medical profession is a curious mixture of radicalism and conservatism is daily shown by the rapidity with which it accepts and uses new drugs; often recommended only by the commercial houses which manufacture them, and the equal tenacity with which it clings to ancient and shopworn theories long after they are discarded by the advance guard of the profession. The causes of both conditions are the same, the most important of them being the inability of the average practitioner to find the time or the inclination to keep up with the literature of his profession. The drug houses keep the practitioner well supplied with "literature" referring to their pet products, or upholding theories which it is to their advantage to exploit, whilst the true state of the knowledge referring to a given subject may often be obtainable only by a visit to a library, and the expenditure of some time.

One of the fallacies to which the mass of the medical profession has clung, in spite of the fact that it has been shown to be erroneous, is the uric acid fallacy. Everything from "nocturnal cramps" to "neuritic sciatica" (whatever that may be) has been ascribed to the malign influence of suboxidation and an excess of uric acid in the blood. The grip which this fallacy has upon the profession and the laity is voiced in a recent editorial in the *Journal of the American Medical Association* in the following words: "The false ideas concerning the mode of formation of uric acid in the body, its decomposition and its pathological significance have become so deeply rooted, not only in the professional mind, but, to a certain extent, in the mind of the laity, that it is unusually difficult to eradicate them."

The most widely accepted of the older theories concerning the formation of uric acid was that this substance was formed as an intermediary product during the oxidation of albuminous substances into urea. It was supposed that when oxidation was interfered with an excess of uric acid was formed; the term "suboxidation" is still one of the favorite catch-words in the so-called medical "literature" of commercial origin with which the office of the practitioner is flooded. This view has long since been superseded, largely as a result of the work originated by Fischer on the constitution of the xanthin bases and their relation to uric acid. To understand the views at present held, one must recall that three great groups of proteids exist which differ in their composition and physiological value. Cellular protoplasm, which is devoid of phosphorus, is the simplest form; next come the paranucleins, which give the reactions of albuminous bodies, and which contain small amounts of phosphorus, and finally the nucleins, which constitute the framework of the cellular nucleus, contain a large amount of phosphorus and are characterized by the presence of nucleic acid. The splitting up of the nucleins gives rise to albumin and nucleic acid, and the further splitting up of the nucleic acid gives rise to thymic acid, and the purin or xanthin bases. The xanthin bases, hypoxanthin, adenin, and guanin are all products of the oxidation of purine, or of oxidation plus the addition of amines.

Uric acid is a product of the oxidation of xanthin, its relation to this base having been demonstrated by Horbaczewsky. The relation of nuclear substances to uric acid was proved by Wenstrand, who increased the uric acid output by administering thymus gland which is rich in nucleins. This, however, did not prove that all uric acid originated in nuclear substance, and this fact was first shown by the dietary studies of Hess and Schmoll, who proved that uric acid excretion was not influenced by albuminous diet, while foods containing xanthin bases influenced it markedly. The present view then regarding the formation of uric acid is that it is produced from nucleins, partly

from those of the body cells, partly, in all probability, from those introduced with the food. Whether or not it will be shown later that the state of the uric acid in the body may serve as an index of certain pathological conditions now ascribed to it, cannot at present be stated. It can be asserted, however, that uric acid has little, if anything, to do with many of the clinical phenomena for which it has been unduly held accountable. It follows from this that many of the statements found in the uric acid "literature" of today are based on insufficient or erroneous observation, and are unworthy of serious consideration by the physician.

#### THE RELATION OF THE AMERICAN MEDICAL ASSOCIATION TO MEDICAL ADVERTISING.

(A statement by the Publication Committee.)

Probably only a few of the members of our Society know that the advertising pages of the *Journal A. M. A.* have been the subject of criticism almost continuously for more than ten years past. That our members may know that we have not acted alone nor without sufficient consideration in the criticisms which have been made in the *STATE JOURNAL*, it has been thought wise to place before you a brief summary of the facts as they are to be found recorded in the pages of the *Journal A. M. A.*

In 1894 the Association met in San Francisco. For a long time prior to that meeting severe and just criticism of the advertising pages of the *Journal* had been made and at this meeting resolutions were presented that resulted in the practical impeachment of the Trustees and the management of the *Journal*. The matter was tried before the Judicial Council, but was to a great extent hushed up. So much had been said, however, that something had to be done and the following year, at the meeting at Baltimore, the Trustees officially recognized the justice of the critics in the annual report of the Board, for we find in that document the following:

"The editor, with the termination of present contracts, has been instructed to accept no advertisements of medicinal preparations, the proprietors of which do not give a formula containing the official or chemic name and quantity of each composing ingredient to be inserted as a part of the advertisement." \*

This report not only recognized the evil but pointed out the proper remedy, a remedy that has been found to be a specific in the hands of your Publication Committee. The quantities of the active ingredients per dose should be a part of every advertisement of a remedial mixture, otherwise it is a secret medicine and should not be used. This, as we have seen from their report, the Trustees admitted in 1895, ten years ago.

There is some reason to doubt whether this ruling was intended to be followed; whether or not the intention was good, the subsequent course of the *Journal* shows that the rule was ignored and that little if any change in the character of the advertising printed in the *Journal* occurred during the five succeeding years. Complaints were made from time to time and by 1900 had become so numerous that again something had to be done. The Trustees considered the matter at their annual meeting, February 16, 1900, and as a result we find the following editorial in the *Journal* for March 31, 1900, page 821:

#### THE JOURNAL AND ITS ADVERTISING POLICY.

On February 26th, last, the following letter was handed to the advertising manager by the editor of the *Journal*, and a copy sent to all advertisers. It explains itself, and also the leading editorial in this issue:

\* *Journal A. M. A.*, May 18, 1895, page 760.

Dear Sir:—At its meeting held February 16, 1900, the Board of Trustees of the American Medical Association adopted a resolution to the effect that the rule adopted by the American Medical Association at Baltimore in 1895, in regard to printing the formulae of proprietary medicines advertised in the *Journal*, shall be hereafter strictly enforced. This makes it necessary that each insertion of an advertisement of a proprietary medicine must be accompanied with a statement showing the active ingredients it contains, and the amount of each ingredient to a given dose.

The Board also adopted a resolution to the effect that no proprietary medicine advertised directly to the laity shall be admitted to the advertising pages of the *Journal*.

You will please see that these resolutions are carried out consistently with existing contracts.

As a result of this action contracts amounting to nearly \$2000.00 annually have already been refused or cancelled, and others will be during the next few weeks. We expect to say more on this subject in future issues of the *Journal*.

After five years, the Trustees again announce that the advertisement of a proprietary mixture cannot honestly be accepted by and appear in a medical journal without doing violence to well-recognized principles of medical ethics, unless the quantities of the active ingredients per dose are given as a part of the advertisement. This is precisely the rule which they said, five years before, would be followed, but which was, apparently, absolutely ignored from 1895 to 1900. Now, in 1900, the Trustees reiterate their former ruling, state that it shall be followed, and so notify the editor and the advertising manager of the *Journal*. Let us see whether it was lived up to any better after the second enacting than after the first.

As the rule is qualified by the statement that existing contracts shall be considered, a year's grace should be given to the management in which to effect the change. Let us examine the advertising pages of the *Journal* one year after the enactment of this rule "which hereafter shall be strictly enforced." If the rule has been rightly administered, if it is really intended that only ethical advertising shall find place in the *Journal's* pages, we should find a quantitative formula with each and every advertisement of a proprietary mixture.

*Journal for March 16, 1901.* There are over 40 proprietary mixtures advertised in this issue; 6 of them give a quantitative formula. In a number of instances there is not sufficient information to tell whether the thing advertised is a chemical or a mixture. At least 2 of the proprietary mixtures are advertised to the laity; several mineral waters are advertised as remedies and some of these are also advertised to the laity. Thus, one year after the adoption of the rule, it was complied with in but 6 out of 40 cases. Among the advertisements of proprietary mixtures without formulas in this issue may be cited the following: Gray's tonic, pepto-mangan, fig syrup, anti-phlogistine, unguentine, vaporesolene, dioviburnia, chionia, chiolin, anhydrosine, citrophen, cactina, seng, etc. At least two are advertised to the laity.

*Journal for March 22, 1902.* This issue contains advertisements of 45 proprietary mixtures; 7 of them give a quantitative formula in accordance with the rule made two years before. There are also advertised a considerable number of remedies which cannot be classed on account of insufficient information; these are given the benefit of the doubt; it is assumed that they are chemicals and they are not included in the above list. Among the proprietaries may be found the following: Listerine, glyco-heroin, chionia, unguentine, seng, aseptinol, tongaline, hydrozone, glycozone, pavara pills, marach, etc. At least 4 proprietaries in this issue are advertised to the laity.

*Journal for March 28, 1903,* or three years after the passage of the rule "which hereafter shall be strictly enforced," promotes, in its advertising pages, 47 proprietary mixtures, and of these but 7 comply with the rule and present the formula. Among the additions to the list may be noted lapactic pills, uriseptin, ammonol, nutrolactis, ostro, santal-midy, etc. ("Santal-midy" is advertised in many daily papers.)